

EDITORIAL



"Sexuality in penile cancer: lessons learned and the road ahead"

© The Author(s), under exclusive licence to Springer Nature Limited 2025

IJIR: Your Sexual Medicine Journal (2025) 37:806–807; <https://doi.org/10.1038/s41443-025-01176-6>

This special issue on penile cancer and sexuality has provided a valuable collection that examines the intersection of oncological management, functional preservation, sexual health, and psychosocial well-being in a disease too often overlooked. Although penile squamous cell carcinoma remains rare in high-income countries, its consequences for those affected are profound [1].

SURGERY AND THE PRESERVATION OF SEXUAL FUNCTION: GAINS AND PERSISTENT GAPS

Several articles in this issue confirm the trend toward organ-sparing approaches wherever oncological feasible. Retrospective data reinforce that carefully selected patients can expect preservation of both voiding and erectile function using organ-sparing surgery, with total glans resurfacing in particular showing the most favourable outcomes [2]. In a large cohort study, Vreeburg et al. report that prospectively collected pre- and postoperative questionnaires reveal increased sexual activity after organ-sparing surgery, underscoring how disease itself can impair sexual function before treatment [3]. Yet, even when organ preservation is achieved, overall sexual satisfaction remains below that of healthy men, highlighting that surgical success does not automatically translate into fully restored sexual well-being [3]. Within this context, intraoperative frozen section examination emerges as a practical tool to support organ-sparing surgery, offering real-time assurance of negative margins while optimizing patient-reported outcomes [4].

While organ preservation is clearly desirable, it is not always feasible. One might assume that the choice between partial and total penectomy is relatively unimportant, as both procedures heavily impact sexual outcomes [3]. However, comparative data suggest otherwise: partial penectomy is associated with reduced complications, shorter operative time and hospital stay, and a lower need for concurrent surgical interventions, whereas total penectomy remains necessary only when oncological control cannot be safely achieved [5]. For those undergoing more radical surgery, reconstruction with phalloplasty can restore aspects of urinary and sexual function, but its technical complexity and donor-site morbidity restrict its use to specialized centres and select patients [6]. These findings illustrate a persistent tension in penile cancer management: balancing oncological safety with the nuanced goals of functional and sexual preservation.

PSYCHOSOCIAL IMPACT AND INTIMACY

Besides functional and sexual outcome, equally important are the voices of patients themselves. Qualitative work in this issue highlights how men experience stigma, secrecy, and delays in diagnosis because of the intimate location of their disease [7]. Treatment itself is not only a surgical or oncological journey but

also a personal one, reshaping relationships, identity, and sexual self-perception. In this context, Paterson et al. outlines a model for supported self-management that emphasizes a multidisciplinary approach, combining oncological expertise with nursing, psychology, sexual therapy, and survivorship planning [8]. In other settings, this has been shown to be a powerful lever for achieving personalized, high-quality care. Implementing however requires a shift and effort in healthcare practice. These insights remind us that penile cancer is not merely a disease of the penis, but a disease of the whole person and his intimate world.

UNCOMMON PENILE AND NEOVAGINAL PATHOLOGIES: RARE CASE INSIGHTS

Two case-reports in this issue highlights the spectrum of rare urogenital pathologies that can pose diagnostic and therapeutic challenges. Squamous cell carcinoma of the neovagina after gender-affirming vaginoplasty highlights the need for awareness of malignancy in transgender women and the importance of specialized, multidisciplinary follow-up [9]. Similarly, the narrative review on intravascular papillary endothelial hyperplasia (Masson's tumour) of the penis illustrates how unusual benign lesions can mimic malignancy, emphasizing the need for careful histopathological assessment to avoid overtreatment [10].

DETERMINANTS OF PROGNOSIS IN PENILE SQUAMOUS CELL CARCINOMA

Finally, two studies in this issue shed light on factors influencing prognosis in penile squamous cell carcinoma. Interestingly, the number of younger men diagnosed with penile SCC has increased over the past 15 years [11]. While disease-specific survival (DSS), recurrence-free survival (RFS), and metastasis-free survival (MFS) are similar between the younger and older groups, overall survival is higher in the younger cohort [11]. Importantly, these findings remind us that penile cancer in younger patients is still a serious and potentially fatal disease, underscoring the ongoing need for public awareness, patient education, and timely medical attention to facilitate early detection and effective management. A meta-analysis of HPV and p16 status confirms their role as favourable prognostic indicators for cancer-specific survival, with p16 also correlating with overall survival [12]. This underscores the biological heterogeneity of penile cancer and the need for biomarker-driven research that may in future guide risk stratification and treatment de-escalation.




CONCLUSION

The contributions assembled here underscore an important message: care for men with penile cancer must be holistic, integrating oncological safety, functional and sexual preservation, psychosocial support, and personalized patient engagement. Beyond technical surgical considerations, these studies invite reflection on the broader


Received: 5 September 2025 Accepted: 10 September 2025

Published online: 23 September 2025

systems and structures needed to optimize care—centralized referral centres, empowered multidisciplinary teams, patient education, and robust self-management support. While progress has been made, there are persistent gaps in reporting of sexual outcomes, psychosocial support, and awareness.

Kaat Vandermaesen ^{1,2,3} and Maarten Albersen ^{2,3} 

¹VIB-KU Leuven, Center for Cancer Biology, Laboratory of Translational Genetics, Leuven, Belgium. ²Department of Urology, University Hospitals Leuven, Leuven, Belgium. ³Department of development and regeneration, KU Leuven, Leuven, Belgium.

email: maarten.albersen@uzleuven.be

REFERENCES

1. Fu L, Tian T, Yao K, Chen XF, Luo G, Gao Y, et al. Global Pattern and Trends in Penile Cancer Incidence: Population-Based Study. *JMIR Public Health Surveill.* 2022;8:e34874.
2. Falcone M, Preto M, Gül M, Şahin A, Scavone M, Cirigliano L, et al. Functional outcomes of organ sparing surgery for penile cancer confined to glans and premalignant lesions. *Int J Impot Res.* 2024. <https://doi.org/10.1038/s41443-024-00967-7> [cited 2025 Aug 20].
3. Vreeburg M, Van Harten M, De Vries H, De Ligt K, Crijnen J, Ottenhof S, et al. Sexual functioning after penile cancer surgery: comparison between surgical approaches in a large patient cohort. *Int J Impot Res.* 2025. <https://doi.org/10.1038/s41443-025-01063-0> [cited 2025 Aug 20].
4. Yunis MZ, Pang KH, Muneer A, Alnajjar HM. Intraoperative frozen section examination for penile cancer surgery: a systematic review. *Int J Impot Res.* 2025. <https://doi.org/10.1038/s41443-025-01024-7> [cited 2025 Aug 20].
5. Velasquez DA, Liu A, Kalidoss S, Yeaman C, Bryk D, Fustok JN, et al. Comparative outcomes of partial versus total penectomy for penile carcinoma: A retrospective cohort study on demographics and postoperative complications. *Int J Impot Res.* 2024. <https://doi.org/10.1038/s41443-024-00935-1> [cited 2025 Aug 20].
6. Lee WG, Christopher AN, Ralph DJ. Phalloplasty following penectomy for penile cancer. *Asian J Urol.* 2022;9:460–6.
7. Roumieux C, Royakkers L, Albersen M, Dancet E. The impact of diagnosis and treatment of penile cancer on intimacy: a qualitative assessment. *Int J Impot Res.* 2024. <https://doi.org/10.1038/s41443-024-00992-6> [cited 2024 Nov 14].
8. Paterson C, Earle W, Homewood D, Chee J, Yao H, Sengupta S, et al. Empowering people affected by penile cancer: towards a model for supportive self-management. *Int J Impot Res* [Internet]. 2025 Mar <https://doi.org/10.1038/s41443-025-01042-5> [cited 2025 Aug 20].
9. Pang KH, Sahdev V, Haider A, Alnajjar HM, Rees R, Muneer A, et al. Squamous cell carcinoma of the neovagina following transgender woman gender-affirming vaginoplasty: a case report and systematic review. *Int J Impot Res.* 2025. <https://doi.org/10.1038/s41443-025-01048-z> [cited 2025 Aug 20].
10. Hammad MAM, Abou Chawareb E, Lee J, Mahdi M, Ahmadi M, Giannico G, et al. A rare case of intravascular papillary endothelial hyperplasia (Masson's tumor) of the penis. *Int J Impot Res.* 2025. <https://doi.org/10.1038/s41443-025-01136-0> [cited 2025 Sept 2].
11. Pang KH, Fallara G, Hemat M, Ghosh A, Haider A, Freeman A, et al. Long-term outcomes of penile squamous cell carcinoma in men age ≤50 years old compared with men >50 years old from a single tertiary referral centre: a propensity score matched analysis. *Int J Impot Res.* 2024. <https://doi.org/10.1038/s41443-024-00842-5> [cited 2025 Aug 20].
12. Vandermaesen K, Elst L, Defraigne C, Langhendries L, Yuan Y, Albersen M, et al. The prognostic role of HPV status in penile squamous cell carcinoma: a systematic review and meta-analysis. *Int J Impot Res.* 2025. <https://doi.org/10.1038/s41443-025-01145-z> [cited 2025 Aug 20].